

GUESS A NUMBER

This activity is based on the six cards you can see below. These are the guessing cards. Using them in a clever way you can guess the number that somebody is thinking.

The number will be from 0 to 63. To guess bigger numbers you would have to use more cards.

Each card has 32 numbers distributed in three columns, in an increasing order and following a hidden rule.

The way to develop the game is to ask somebody to think of a number from 1 to 64. If there are several people you can suggest him or her to write down the number and show it to everybody except you.

After that, you will show the cards one by one and asking the player if the thinking number appears in each one or not. When you know all this information, that is, the cards which include the number, you could be able to guess the number.

What is your task?

First, you have to cut the cards and write in the right upper corner at the backside the first number you have on the frontside, that is, 1, 2, 4, 8, 16 and 32.

Second, you have to practise the game with somebody until you are able to calculate the result quickly. The unknown number is the result of adding up the small numbers you write on the underside when the player tell you his or her number is on this card.

Third, you have to try to explain the mathematical reason that provide us this power.

1	23	45	2	23	46	4	23	46
3	25	47	3	26	47	5	28	47
5	27	49	6	27	50	6	29	52
7	29	51	7	30	51	7	30	53
9	31	53	10	31	54	12	31	54
11	33	55	11	34	55	13	36	55
13	35	57	14	35	58	14	37	60
15	37	59	15	38	59	15	38	61
17	39	61	18	39	62	20	39	62
19	41	63	19	42	63	21	44	63
21	43		22	43		22	45	
8	27	46	16	27	54	32	43	54
9	28	47	17	28	55	33	44	55
10	29	56	18	29	56	34	45	56
11	30	57	19	30	57	35	46	57
12	31	58	20	31	58	36	47	58
13	40	59	21	48	59	37	48	59
14	41	60	22	49	60	38	49	60
15	42	61	23	50	61	39	50	61
24	43	62	24	51	62	40	51	62
25	44	63	25	52	63	41	52	63
26	45		26	53		42	53	

